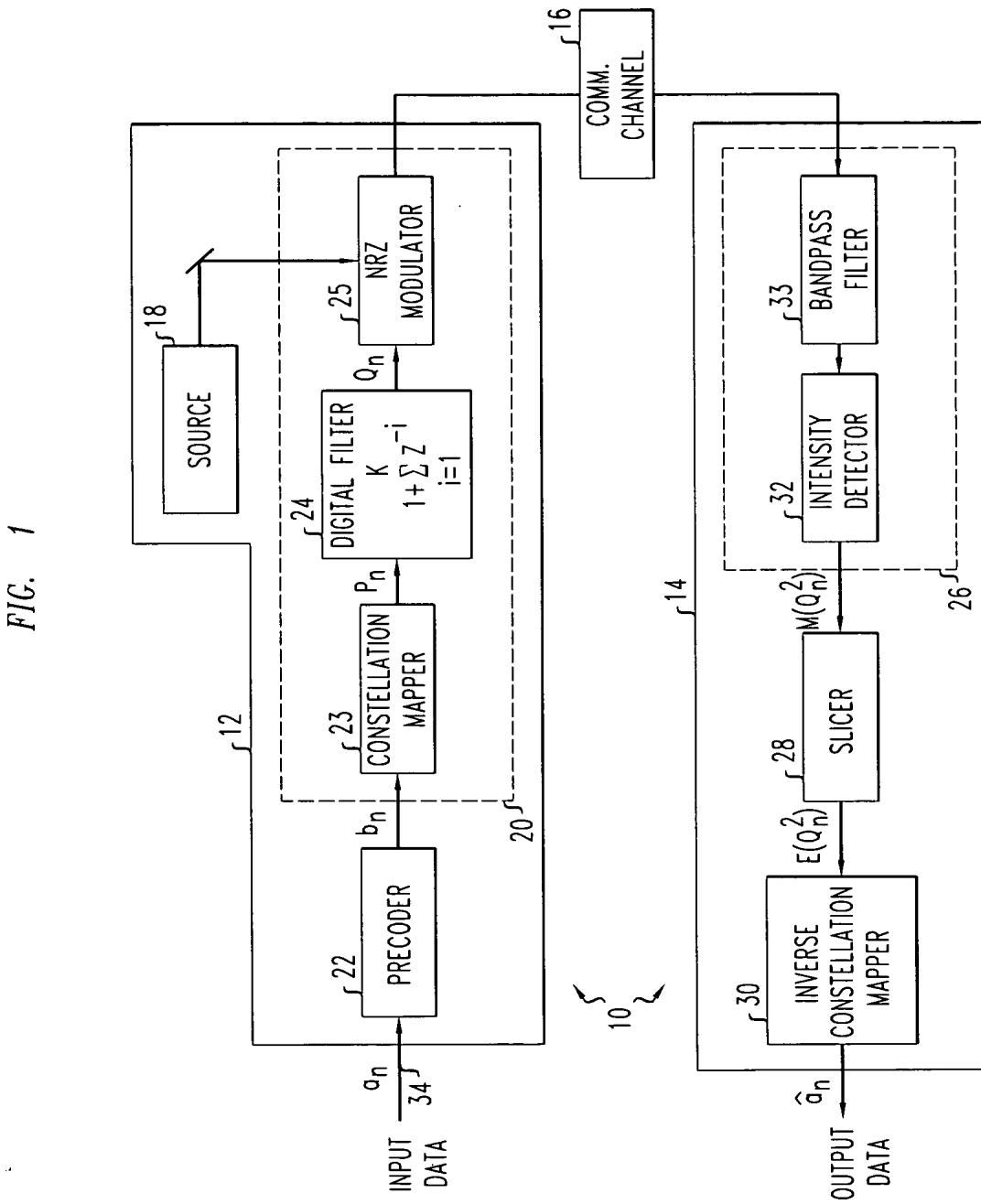




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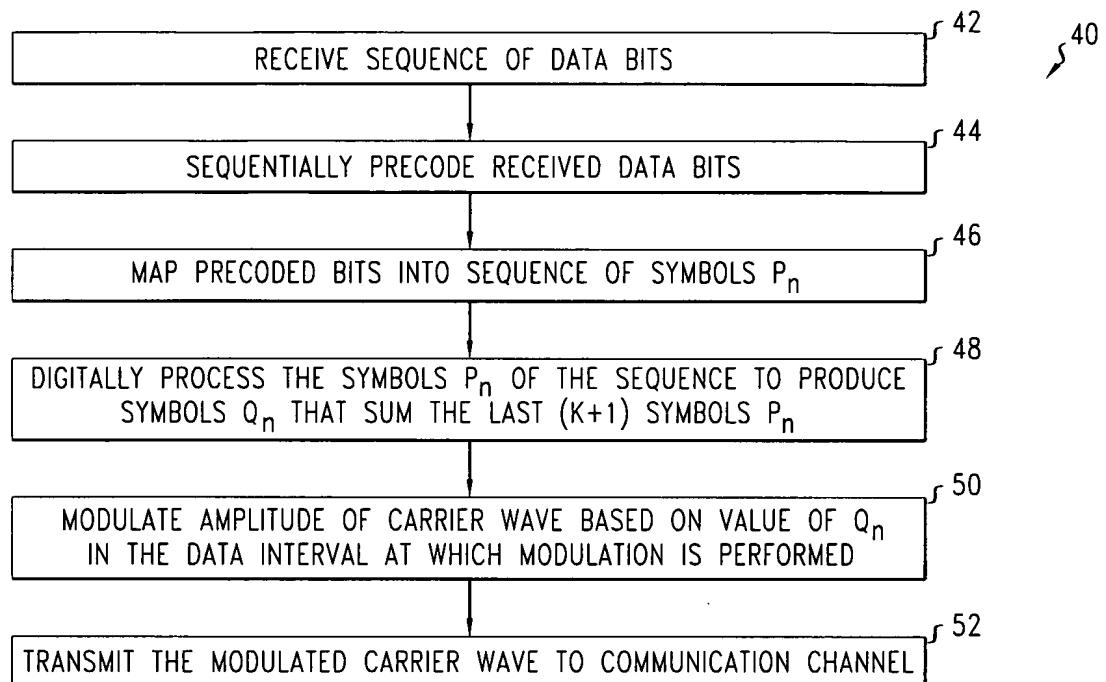




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FIG. 2

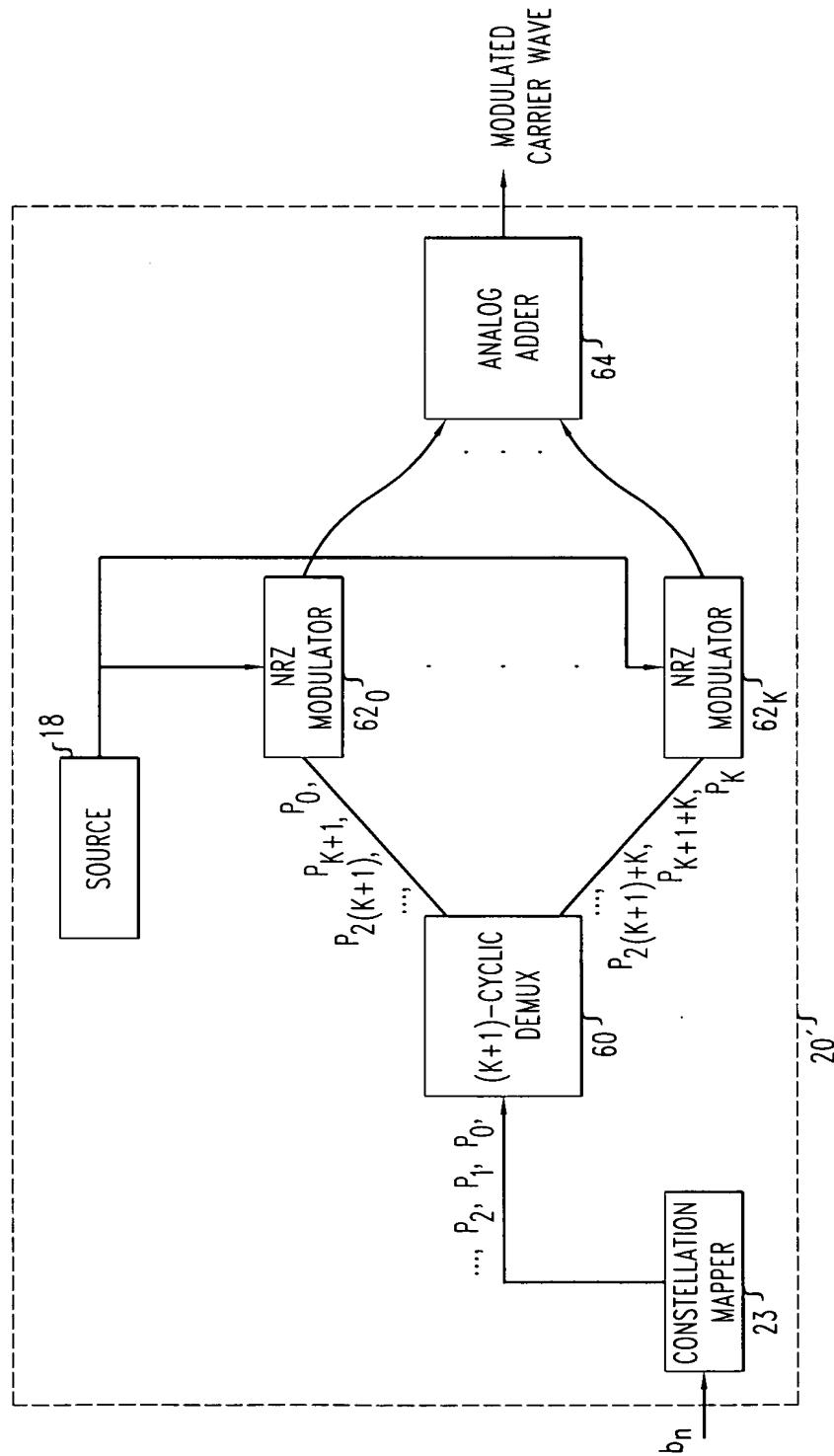


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FIG. 3

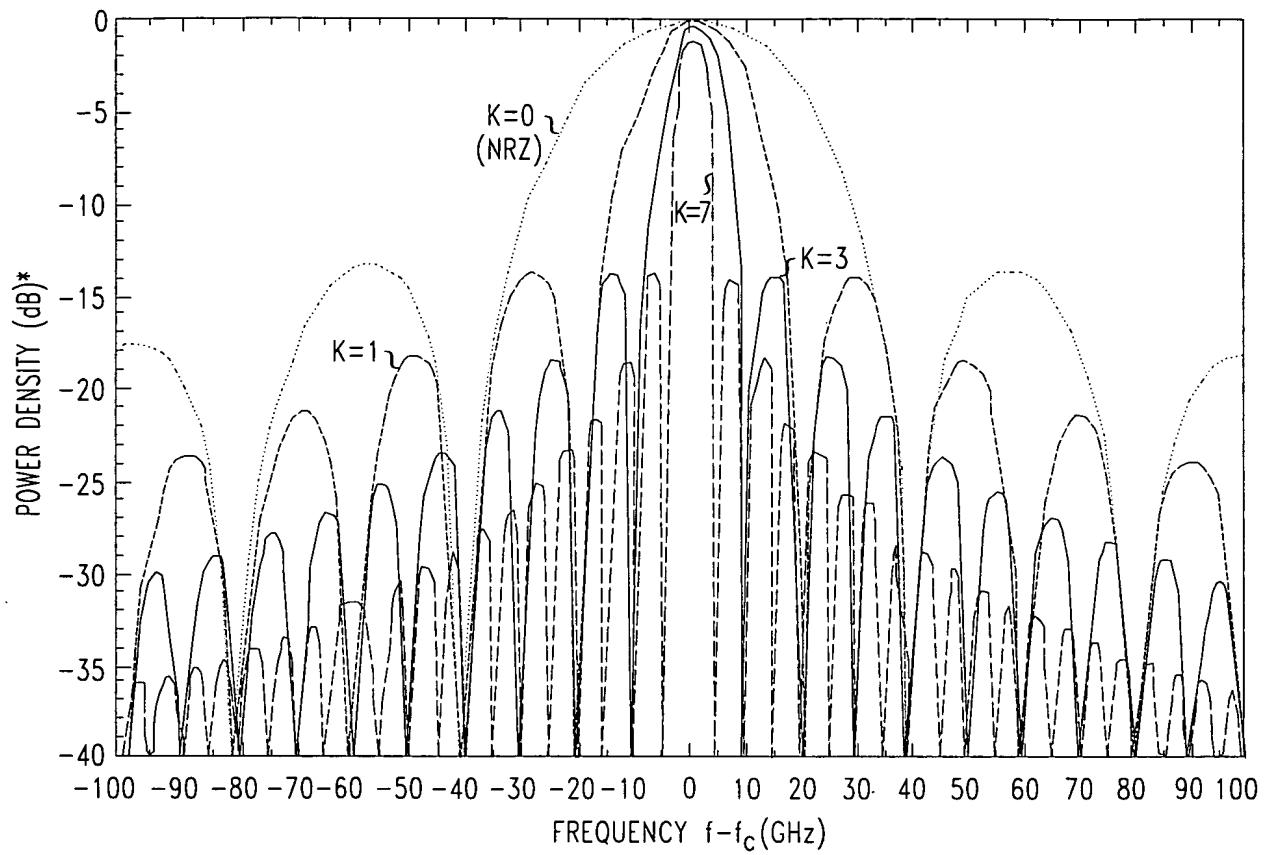


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FIG. 4



* RELATIVE TO THE DENSITY AT $f=f_c$



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FIG. 5

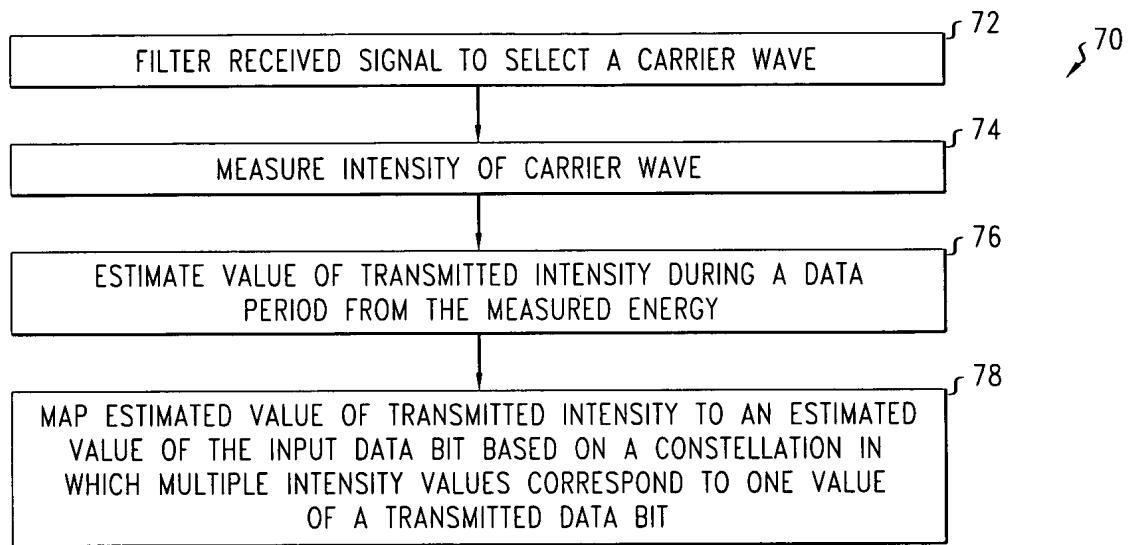
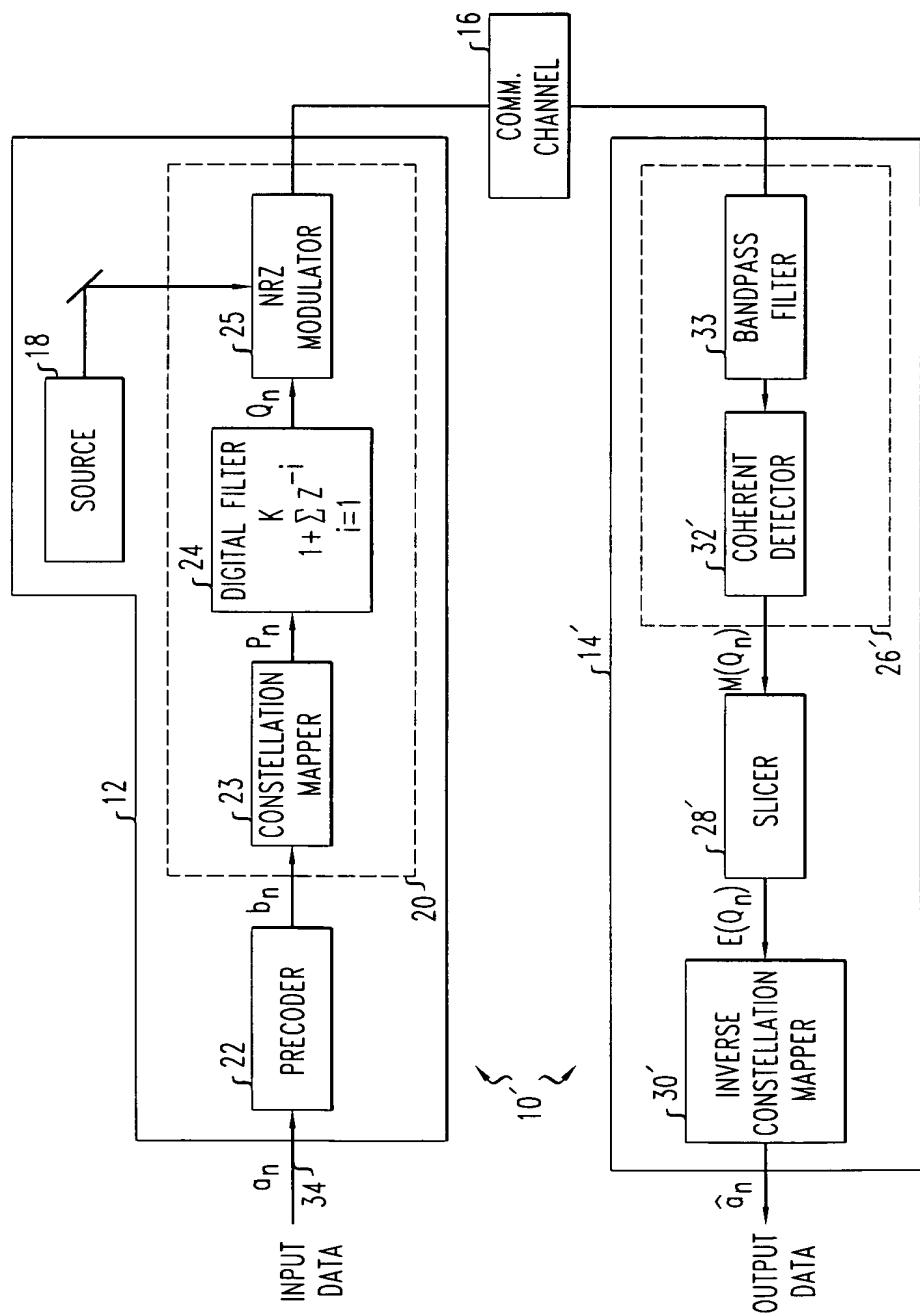




FIG. 6

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FIG. 7

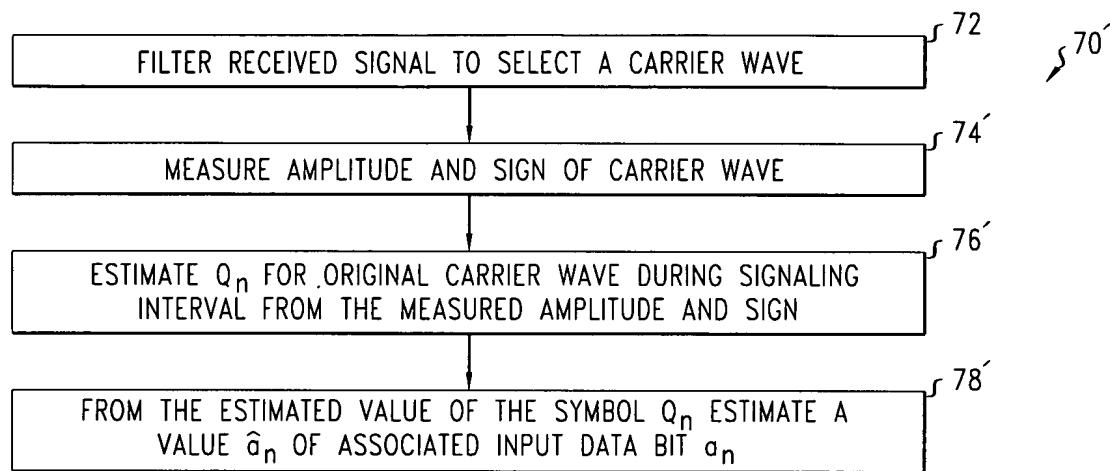
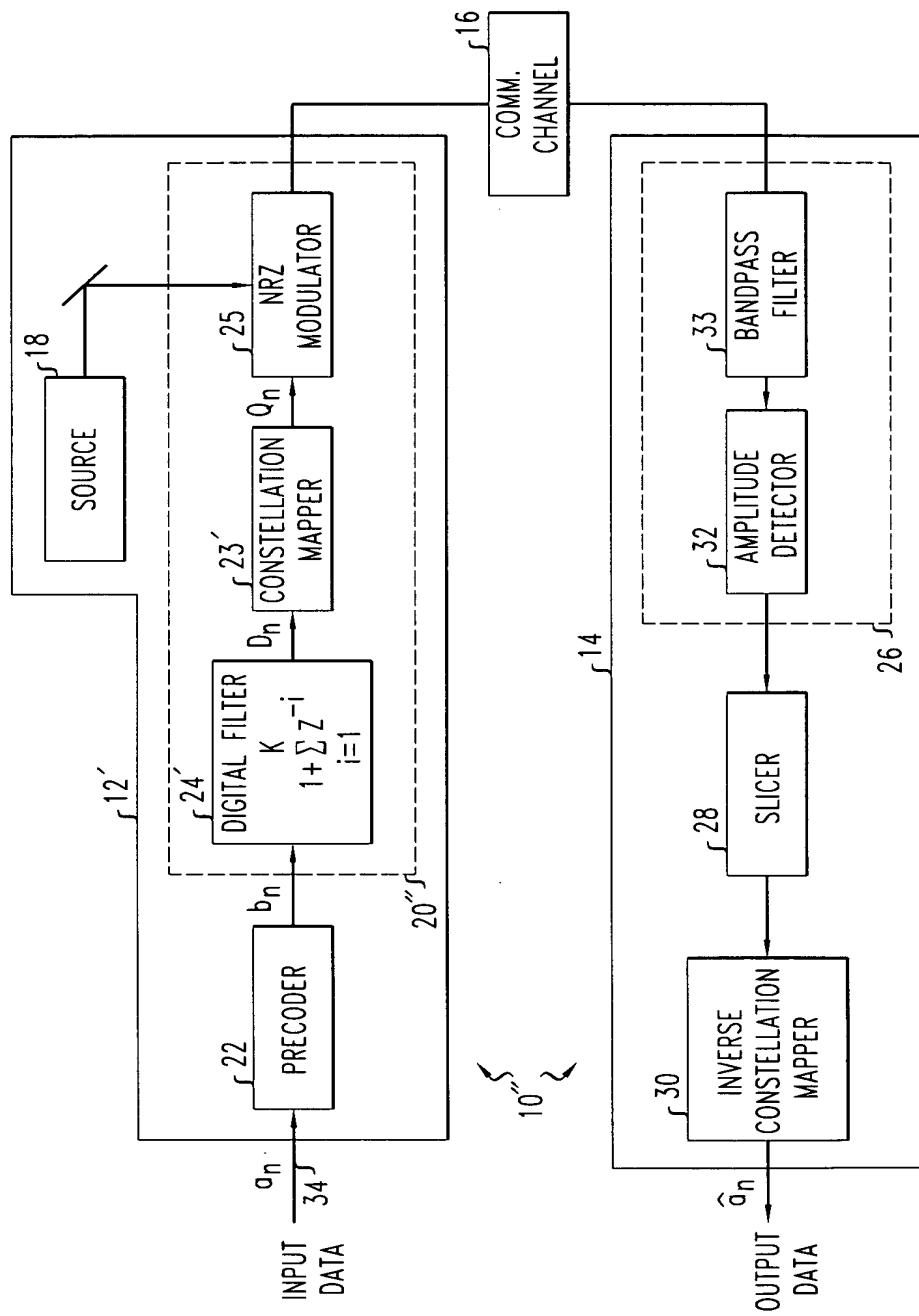




FIG. 8

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FIG. 9

DIGITAL FILTER	NORMALIZED SIGNAL BANDWIDTH*	LOSS IN RECEIVER SENSITIVITY (dB)*	NUMBER OF TRANSMITTER SIGNAL AMPLITUDES Q_n	NUMBER OF RECEIVER SIGNAL AMPLITUDES Q_n^2
$1 + \sum_{i=1}^n Z^{-i}$ (DUOBINARY)	$\frac{1}{2}$	0	3	2
$1 + Z^{-1} + Z^{-2} + Z^{-3}$	$\frac{1}{4}$	3	5	3
$1 + \sum_{i=1}^5 Z^{-i}$	$\frac{1}{6}$	4.8	7	4
$1 + \sum_{i=1}^7 Z^{-i}$	$\frac{1}{8}$	6	9	5
:	:	:	:	:
$1 + \sum_{i=1}^{15} Z^{-i}$	$\frac{1}{16}$	9	17	9

*RELATIVE TO A BASELINE ON/OFF NRZ MODULATION